

Notice of Allowability

Application No.

10/622,030

Examiner

Callie E. Shosho

Applicant(s)

SOGA ET AL.

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 7/19/06 and telephonic interview conducted 10/16/06.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/929,728.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 10/16/06.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) Claim 1, line 7, after "ether" and before "ester", delete "with" and insert "having".

(2) Claim 3, line 7, after "ether" and before "ester", delete "with" and insert "having".

(3) Claim 4, line 7, after "ether" and before "ester", delete "with" and insert "having".

(4) Claim 5, line 6, after "ether" and before "ester", delete "with" and insert "having".

(5) Claim 5, line 8, after "in" and before "ink", delete "an" and insert "the".

(7) Claim 7, line 7, after "ether" and before "ester", delete "with" and insert "having".

(8) Claim 7, line 8, after "in" and before "ink", delete "an" and insert "the".

(9) Claim 8, line 8, after "ether" and before "ester", delete "with" and insert "having".

(10) Claim 8, line 10, after “in” and before “ink”, delete “an” and insert “the”.

(11) Claim 9, line 6, after “ether”, delete “with” and insert “having”.

2. Authorization for this examiner’s amendment was given in a telephone interview with Jennifer Woodside on 10/16/06.

Statement of Reasons for Allowance

3. In the office action mailed 4/19/06, claims 1-9 were rejected under 35 USC 112, first paragraph.

Applicants' amendment filed 7/19/06 overcomes all the 35 USC 112, first paragraph rejections of record.

Thus, present claims 1-9 are allowable over the "closest" prior art EP 1008634, Spinelli (U.S. 5,772,741) and Petersen et al. (U.S. 6,201,099) for the following reasons:

EP 1008634 discloses aqueous ink jet ink comprising humectant, penetrant, oil-soluble dye, and amphiphilic star block copolymer which comprises arms comprising both hydrophilic and hydrophobic segments and wherein the ink possesses surface tension of 20-70 dyne/cm and viscosity of 1-10 cP. However, there is no disclosure or suggestion in EP 1008634 that the hydrophilic segment of the star polymer is obtained by hydrolyzing vinyl ether having ester side chains as required in each of present claims 1, 3-5, and 7-8. Further, there is no disclosure or suggestion in EP 1008634 of additive composed of a hydrophobic segment that attaches to the oil-soluble dye and a hydrophilic segment that is located outside the hydrophobic segment wherein the hydrophilic segment is obtained by hydrolyzing vinyl ether having ester side chains as required in present claim 9.

Spinelli discloses ink jet ink comprising water, pigment, dispersant, and oil-soluble dye. However, there is no disclosure or suggestion in Spinelli of amphiphilic star block polymer comprising core and arms as required in each of present claims 1 and 3-4, of amphiphilic heteroarm star polymer as required in each of present claims 5 and 7-8, or of additive composed

of a hydrophobic segment that attaches to the oil-soluble dye and a hydrophilic segment that is located outside the hydrophobic segment wherein the hydrophilic segment is obtained by hydrolyzing vinyl ether having ester side chains as required in present claim 9.

Petersen et al. disclose the use of heteroarm star polymer. However, there is no disclosure or suggestion in Petersen et al. that the hydrophilic segment of the star polymer is obtained by hydrolyzing vinyl ether having ester side chains as required in each of present claims 5 and 7-8. Further, there is no disclosure of amphiphilic star block polymer as required in each of present claims 1 and 3-4 and no disclosure or suggestion of additive composed of a hydrophobic segment that attaches to an oil-soluble dye and a hydrophilic segment that is located outside the hydrophobic segment wherein the hydrophilic segment is obtained by hydrolyzing vinyl ether having ester side chains as required in present claim 9. Additionally, there is no disclosure in Petersen et al. of ink as required in all the present claims.

Thus, it is clear that EP 1008634, Spinelli, and Petersen et al., either alone or in combination, do not disclose or suggest the present invention.

In light of the above, the present claims are passed to issue.

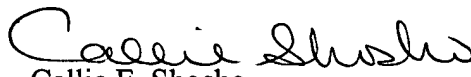
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
10/16/06